

Claims**1. User interface means comprising**

- motion detection means (MDM),
- output means (OM) and
- 5 • adaptation means (AM) adapted for
 - receipt of motion detection signals (MDS) obtained by said motion detection means (MSM),
 - establishing an interpretation frame on the basis of said motion detection signals (MDS) and
 - 10 ○ establishing and outputting communication signals (CS) to said output means (OM) on the basis of said motion detection signals (MDS) and said interpretation frame.

2. User interface means according to claim 1, wherein said user interface comprises

15 signal processing means or communicates with motion detection means (MDM) determining the obtained signal differences by comparison with the signals obtained when establishing said interpretation frame.

3. User interface means according to claim 1 or 2, wherein said user interface means

20 are distributed.

4. User interface means according to any of the claims 1 – 3, wherein said motion detection means MDM comprise a set of motion detection sensors (SEN1, SEN2...SENn).

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5. User interface means according to any of the claims 1 – 4, wherein said set of motion detection sensors (SEN1, SEN2...SENn) are exchangeable.

30 **6. User interface means according to any of the claims 1 – 5, wherein said set of motion detection sensors (SEN1, SEN2...SENn) forms a motion detection means**

(MDM) combined by at least two motion detection sensors (SEN1, SEN2...SENn) and where the individual motion detection sensor may be exchanged by another motion detection sensor.

- 5 7. User interface means according to any of the claims 1 – 6, wherein said set of motion detection sensors (SEN1, SEN2...SENn) comprises at least two different types of motion detection sensors.
- 8 User interface means according to any of the claims 1 – 7, wherein said motion
10 detection means (MDM) may be optimized by a user to the intended purpose by exchanging or adding of motion detection sensors (SEN1, SEN2,...SENn), preferably by means of at least two different types of motion detection sensors (SEN1, SEN2...SENn).
- 15 9. User interface means according to any of the claims 1 – 8, wherein said at least two different types of motion detection sensors (SEN1, SEN2...SENn) are mutually distinguishable.
10. User interface means according to any of the claims 1 – 9, wherein said motion
20 detection sensors (SEN1, SEN2...SENn) physically comprise at least parts of said adaptation means (AM).
11. User interface means according to any of the claims 1 – 10, wherein said user interface means comprise configuration means (CM) for configuring said adaptation
25 means (AM).
12. User interface means according to any of the claims 1 – 11, wherein said configuration means (CM) outputs information to the user through said output means (OM).

13. User interface means according to any of the claims 1 – 12, wherein said configuration means (CM) represent different parameters of the adaptation means (AM) by a human figure presented to the user by means of said output means (OM).

5 14. User interface means according to any of the claims 1 – 13, wherein said configuration means (CM) comprise a configuration wizard for automatically or semi-automatically leading the user through a configuration sequence.

10 15. User interface means according to any of the claims 1 – 14, wherein said configuration sequence comprises the steps of

- choosing the position of the subject,
- choosing the area of the body used in the exercise,
- indicating the desired movement for the exercise,
- playing back the movements of the exercise for the subject,
- 15 • indicating the desired output for the exercise,
- choosing which part of the body should be fixed or monitored for erroneous movements and
- choosing the strictness of error control.

20 16 User interface means according to any of the claims 1 – 15, wherein said user interface means comprise remote control means.

17 User interface means according to any of the claims 1 – 16, wherein said motion detection sensors (SEN1, SEN2...SENn) are driven by rechargeable batteries.

25 18. User interface means according to any of the claims 1 – 17, wherein said motion detection means (MDM) comprise a sensor tray (ST) for holding said motion detection sensors (SEN1, SEN2...SENn).

19. User interface means according to any of the claims 1 – 18, wherein said sensor tray (ST) comprises means for recharging said motion detection sensors (SEN1, SEN2...SENn).
- 5 20. User interface means according to any of the claims 1 – 19, wherein said motion detection signals (MDS) are transmitted by means of wireless communication.
- 10 21. User interface means according to any of the claims 1 – 20, wherein said communication signals (CS) are transmitted by means of establishing wireless communication.
22. User interface means according to any of the claims 1 – 21, wherein said wireless communication exploits the Bluetooth technology.
- 15 23. User interface means according to any of the claims 1 – 22, wherein said wireless communication exploits wireless network technology.
- 20 24. User interface means according to any of the claims 1 – 23, wherein said wireless communication exploits wireless broadband technology.
- 25 25. User interface means according to any of the claims 1 – 24, wherein said wireless communication exploits UMTS technology.
26. User interface means according to any of the claims 1 – 25, wherein said user interface means comprise a sensor stand (SS).
27. User interface means according to any of the claims 1 – 26, wherein said sensor stand (SS) has a shape recognizable as the shape of a human body.
- 30 28. User interface means according to any of the claims 1 – 27, wherein said output means (OM) comprise an output interface.

29. User interface means according to any of the claims 1 – 28, wherein said output means (OM) comprise a computer.
- 5 30. Use of user interface means according to any of the claims 1 to 29 for rehabilitation.
31. Use of user interface means according to any of the claims 1 to 29 for controlling electronical appliances.
- 10 32. Use of user interface means according to any of the claims 1 to 29 for controlling machines.
33. Use of user interface means according to any of the claims 1 to 29 for communication.
- 15 34. Motion detector comprising a set of partial detectors of different types with respect to detection characteristics.
- 20 35. Motion detector according to claim 34, wherein the motion detector is adaptive.
36. Motion detector for use in an interface according to any of the claims 1 to 35.